

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-16. (Cancelled)

17. (Currently Amended) A method of imaging a liquid-filling container, comprising the steps of:

emitting and irradiating light onto the container by a light emitting unit, receiving the light transmitted through the container by a light receiving unit, and imaging inside of the container based on information about the transmitted light, wherein said light emitting unit emits and irradiates a near infrared light with a wavelength of 700 to 900 nm as said light for imaging inside of the container, and the container is one of a colored container and a container with a frost surface.

18. (Previously Presented) The method according to claim 17, wherein said light emitting unit comprises a light emitter and a cut filter for filtering light from the light emitter so as to transmit only near infrared light component of the light or a greater amount of near infrared light component than visible light component of the light.

19. (Currently Amended) A method of imaging a liquid-filling container, comprising the steps of:

emitting and irradiating light onto the container by a light emitting unit, receiving the light transmitted through the container by a light receiving unit, and imaging inside of the container based on information about the transmitted light,

wherein said light receiving unit receives a near infrared light with a wavelength of 700 to 900 nm as said light for imaging inside of the container, and the container is one of a colored container and a container with a frost surface.

20. (Previously Presented) The method according to claim 19, wherein said light receiving unit comprises a cut filter for filtering the light transmitted through the containers so as to selectively transmit only near infrared component of the light or a greater amount of near infrared light component than visible light component of the light and a light receiver for receiving the light transmitted through the cut filter.

21. (Previously Presented) The method according to claim 17, wherein said light emitting unit and said light receiving unit are disposed so as to enable imaging of a container which are conveyed one after another along a conveying line.

22. (Previously Presented) The method according to claim 17, further including the step of detecting an amount of liquid filled in the container.

23. (Previously Presented) The method according to claim 17, further including the step of detecting any foreign substance present in the liquid filled in the container.

24. (Previously Presented) The method according to claim 17, further including the step of detecting any foreign substance present in the container or in a material forming the container.

25. (Currently Amended) An apparatus for imaging a liquid-filling container, comprising:

a light emitting unit for emitting and irradiating light onto the container, and
a light receiving unit for receiving the light transmitted through the container,

wherein said light emitting unit emits and irradiates a near infrared light with a wavelength of 700 to 900 nm as said light for imaging inside of the container, and the container is one of a colored container and a container with a frost surface.

26. (Previously Presented) The apparatus according to claim 25, wherein said light emitting unit comprises a light emitter and a cut filter for filtering light from the light emitter so as to transmit only near infrared component of the light or a greater amount of near infrared light component of the light than visible light component thereof.

27. (Currently Amended) An apparatus for imaging a liquid-filling container, comprising:

a light emitting unit for emitting and irradiating light onto the container, and
a light receiving unit for receiving the light transmitted through the container,
wherein said light receiving unit receives a near infrared light with a wavelength of 700 to 900 nm as said light for imaging inside of the container, and the container is one of a colored container and a container with a frost surface.

28. (Previously Presented) The apparatus according to claim 27, wherein said light receiving unit comprises a cut filter for filtering the light transmitted through the container so as to transmit only near infrared component of the light or a greater amount of near infrared light component than visible light component of the light and a light receiver for receiving the light transmitted through the cut filter.

29. (Previously Presented) The apparatus according to claim 25, wherein said light emitting unit and said light receiving unit are disposed so as to enable imaging of said container which is conveyed one after another along a conveying line.

30. (Previously Presented) The apparatus according to claim 25, wherein an amount of liquid filled in the container is detected.

31. (Previously Presented) The apparatus according to claim 25, wherein any foreign substance present in the liquid filled in the container is detected.

32. (Previously Presented) The apparatus according to claim 25, wherein any foreign substance present in the container or in a material forming the container is detected.

33. (Previously Presented) The method according to claim 19, wherein said light emitting unit and said light receiving unit are disposed so as to enable imaging of a container which are conveyed one after another along a conveying line.

34. (Previously Presented) The method according to claim 19, further including the step of detecting an amount of liquid filled in the container.

35. (Previously Presented) The method according to claim 19, further including the step of detecting any foreign substance present in the liquid filled in the container.

36. (Previously Presented) The method according to claim 19, further including the step of detecting any foreign substance present in the container or in a material forming the container.

37. (Previously Presented) The apparatus according to claim 27, wherein said light emitting unit and said light receiving unit are disposed so as to enable imaging of said container which is conveyed one after another along a conveying line.

38. (Previously Presented) The apparatus according to claim 27, wherein an amount of liquid filled in the container is detected.

39. (Previously Presented) The apparatus according to claim 27, wherein any foreign substance present in the liquid filled in the container is detected.

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40. (Previously Presented) The apparatus according to claim 27, wherein any foreign substance present in the container or in a material forming the container is detected.